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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,829	11/20/2001	Johannes Heinrich	31830-176291 RK	8831

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EXAMINER

JOHNSON, VICKY A

ART UNIT	PAPER NUMBER
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3682

DATE MAILED: 11/19/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,829

Applicant(s)

HEINRICH ET AL.

Examiner

Vicky A. Johnson

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 20-38 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 20-24, 37 and 38 is/are rejected.
- 7) ☒ Claim(s) 25-36 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 29 August 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 12.
- ☐ Interview Summary (PTO-413) Paper No(s). ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

DETAILED ACTION

Drawings

1. The drawings were received on August 29, 2003. These drawings are approved.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 20–24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dhont (EP 0097986) in view of Yoshida et al (JP 63-9767).

Dhont discloses an infinitely variable cone pulley transmission (see Fig 6) and the generating of axial contact pressure forces of the cone pulleys upon a traction means (69), rotating between the cone pulleys, via tensioning means (65,70) arranged on the transmission shafts (23, 24), which exert forces in axial direction upon respectively one cone pulley that can be displaced axially along the respective transmission shaft, wherein hydraulic tensioning means (65) are provided on a first transmission side for adjusting and maintaining the transmission ratio and a spring supported tensioning means (70) that is braced against a support (unnumbered, see Fig 6 the member to the left of 81, fixed relative to the shaft (page 11 line 33 – page 12 line 3), is provided on the second transmission side, wherein an axially fixed cone pulley (67) and an axially movable cone pulley (68) with an extended hub (see Fig 6) are jointly arranged on the second transmission side, the cone pulleys are rotationally

Art Unit: 3682

connected and jointly rotate on their transmission shaft and are coupled to said transmission shaft via a contact pressure mechanism (70) that depends on the rotational moment or the rotational moment and the transmission ratio, the contact pressure mechanism consists of a cam sleeve (72) that is fixedly connected to the shaft (81 is connected to the fixed pulley 67), a cam sleeve (74) formed by the free end of the extended hub (the connection of the 81 and its connection being part of the extended hub).

Dhont does not disclose roll bodies for transmitting the force, wherein said roll bodies are inserted between opposite arranged cam curves and rotate around the roll body axes extending in radial direction, relative to the transmission shaft, said roll bodies are guided by rings, are held at a mutual distance to each other in the axial center region between the cam sleeves with the aid of a spring that is arranged coaxial on the extended hub.

Yoshida et al disclose roll bodies (11) for transmitting the force, wherein said roll bodies are inserted between opposite arranged cam curves (10,11) and rotate around the roll body axes extending in radial direction relative to the transmission shaft (see Fig 1), said roll bodies are guided by rings (12), are held at a mutual distance to each other in the axial center region (abstract) between the cam sleeves with the aid of a spring (17) that is arranged coaxial on the extended hub (see Fig 1).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the roll bodies and guide rings of Yoshida et al in the transmission of Dhont in order to prevent slippage (abstract).

Re claim 21, Dhont shows the cone pulleys are arranged on a hollow shaft (see 6), which is positioned on the transmission shaft (24), such that it can rotate but cannot be displaced in the axial direction (page 11 lines 9-12), that the axially fixed cone pulley is rigidly connected to the hollow shaft (the shaft part of 67), that the axially moveable cone pulley (68) is connected to the hollow shaft so as to rotate along (page 1 lines 9-23) and that the cam sleeve (72) that is fixedly connected to the shaft is arranged next to the hollow shaft on the transmission shaft such that it can rotate along and cannot be displaced (page 11 lines 24-26), at least not in an axial direction away from the opposite arranged cam sleeve.

Re claim 22, Dhont shows the axially fixed cone pulley (67) forms one piece with the hollow shaft (see Fig 6).

Re claim 23, Yoshida et al show the roll bodies (11) engage in corresponding recesses on the rings with the aid of pinions that are coaxial to their rotational axes and project in radial direction relative to the transmission shaft from the roll bodies (see Fig 1).

Re claim 24, Yoshida et al show a holding ring (12) is arranged in radial direction coaxial to the transmission shaft, either inside or outside of the roll bodies, and that the pinions on the roll bodies are positioned so as to rotate inside holding ring bores, extending in radial direction relative to the transmission shaft (see Fig 1).

4. Claims 37 and 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dhont (EP 0097986) in view of Yoshida et al (JP 63-9767) as applied to claims 20-24 above, and further in view of Höhn et al (DE 3403704).

Dhont shows the hydraulic tensioning means comprises the associated axially displaceable cone pulley (64) as bottom for a pressure cylinder connected to the cone pulley (see Fig 6), which pressure cylinder forms together with a piston that is fixed relative to the shaft and a pressure chamber (see Fig 6).

Dhont does not disclose a pressure chamber which a pump supplies a pressure medium, taken from a pressure medium supply via a pressure medium supply line for maintaining and adjusting a transmission ratio in a manner determined by a control valve, characterized in that a reversing valve is arranged inside the pressure medium supply line and that via the reversing valve, the pressure chamber can be connected to the pressure medium supply or the intake side of a pressure medium pump.

Höhn et al disclose a pressure chamber (58) which a pump supplies a pressure medium (see Fig 1), taken from a pressure medium supply (28) via a pressure medium supply line for maintaining and adjusting a transmission ratio in a manner determined by a control valve (22), characterized in that a reversing valve (44) is arranged inside the pressure medium supply line (42a, 42b) and that via the reversing valve, the pressure chamber can be connected to the pressure medium supply (28) or the intake side of a pressure medium pump.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the hydraulic circuit as taught by Höhn et al in the transmission of Dhont in order to maintain a predetermined base pressure in the hydraulic control (abstract).

Re claim 38, Höhn et al show the reversing valve can be activated by the control for the control valve (abstract).

Allowable Subject Matter

5. Claims 25-36 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

6. Applicant's arguments with respect to claim 20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Applicant's submission of an information disclosure statement under 37 CFR 1.97(c) with the fee set forth in 37 CFR 1.17(p) on August 25, 2003 prompted the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 609(B)(2)(i). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

Art Unit: 3682

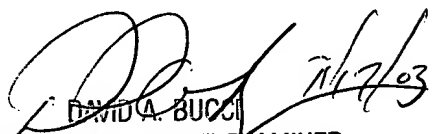
the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vicky A. Johnson whose telephone number is (703) 305-3013. The examiner can normally be reached on Monday-Thursday (7:00a-5:00p).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Bucci can be reached on (703) 308-3668. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

vaj 10/11/03


DAVID A. BUCCI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3600